REMARKS

The Examiner is thanked for his time in the telephone conversation of October 8, 2004, to discuss proposed claim amendments.

Prior to entry of this amendment, Claims 1-2, 4-8, 10-14 and 16-20 were pending in this application. By this amendment, Claims 1-2, 6-8, 10, 12-14 and 18-20 have been amended. The amendments to the claims do not add any new matter to this application. All issues raised in the Final Office Action mailed August 16, 2004 are addressed hereinafter.

Each pending claim is in condition for allowance over the cited art because one or more elements of each pending claim is not disclosed, taught, or suggested by the cited art.

Claims 1-2, 6-8, 12-14 and 18-20 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over *Shurmer*, U.S. Patent No. 5,974,237, in view of *Ellesson*, U.S. Pat. No. 6,459,682. Claims 4, 10 and 16 stand rejected under § 103(a) as being unpatentable over *Shurmer* and *Ellesson*, further in view of *Ballantyne*, U.S. Pat. No. 6,687,873. Claims 5, 11 and 17 stand rejected under § 103(a) as being unpatentable over *Shurmer* and *Ellesson*, further in view of *Schuster*, U.S. Pat. No. 6,363,053.

The rejections are herein respectfully traversed.

REJECTION OF INDEPENDENT CLAIMS 1, 7, 13 AND 19 UNDER 35 U.S.C. 103(a)

Embodiments of the present invention provide a method of verifying that a service provider is providing the level of service guaranteed in a service level contract made between the service provider and a customer. In particular, embodiments of the present invention define <u>tests</u> for measuring the level of service being provided, and <u>specific time periods</u> for performing the tests, in a <u>schema</u>. The tests are distributed to agents that configure network

devices to perform the tests during the specified time periods and receive result information

from the devices performing the tests.

Representative independent method claim 1, as amended, requires the steps of:

> receiving a schema that provides a configuration for monitoring a service level
> > contract between the service provider and a particular customer, wherein the
> > schema comprises data defining one or more tests for monitoring the level of
> > network service being provided to the particular customer by the service
> > provider and information defining a specific time range for when the one or
> > more tests are to be performed;
> distributing the one or more tests to one or more agents, wherein the one or more
> > agents configure devices associated with the network to perform the one or
> > more tests during the specific time range and receive result information from
> > the devices performing the one or more tests.

The cited prior art references do not teach or suggest every element of these steps.

I. "Data Defining Tests for Monitoring the Level of Network Service Being Provided"

The Office Action asserts that Col. 1, lns 54-55, Col. 16, lns 39-43 and Col. 20, lns

52-56 of *Shurmer* teach "data defining one or more tests for monitoring the level of network

service being provided to a particular customer." (Office Action, Page 3, paragraph 6a.) The

cited sections of *Shurmer* only disclose that in a monitoring session, a user inputs "a set of

operational parameters to be monitored" and "component and electrical signals

corresponding to selected network elements and components of those elements are collected

for each user." The user "can specify one or more of a plurality of connections ... and be

presented with a resource display 111 identifying the individual node elements which support

the services between those communications network customers." *Shurmer* does not disclose

data defining **tests for monitoring a level of network service being provided to a particular**

customer. Collecting signals for operational parameters, and then displaying a report of the

monitored signals, as in *Shurmer*, is not the same thing as <u>testing a level of network service</u> over a specified time period, as claimed. *Shurmer* teaches passive monitoring and reporting; the claims involve active testing for SLA compliance.

The independent claims of the present invention feature "one or more <u>tests for monitoring the level of network service being provided ... by the service provider.</u>" For example, as disclosed in the present specification at Page 11, lines 14-19, one embodiment defines "a set of metric tests that a service provider has approved for verifying the level service that is being provided to a customer." As further disclosed at Page 19, lines 20-24, "each SLA encapsulates the type of metric which should be monitored (e.g. DNS response time)... The metric type defines the type of test that is to be performed." Examples of tests include ICMP metrics, UDP metrics, DNS metrics, HTTP metrics and VoIP metrics. (Page 20, lines 1-2.) By performing specific metric tests, embodiments can measure the level of service being provided, and therefore determine whether a service provider is providing the level of service guaranteed in a service level contract.

Shurmer does not disclose <u>tests</u> of any kind, much less tests for monitoring service level contracts. *Shurmer* only discloses that a user inputs operational parameters and that signal data corresponding to the selected network elements is collected. The operational parameters in *Shurmer* are merely "performance parameters describing the performance of a network element" or "a service parameter, describing a service supported by one or a plurality of network elements." (Col. 6, lns 57-62).

Significantly, *Shurmer* teaches away from tests for monitoring a service level contract at Col. 14, lns 16-24: "[s]ince monitoring is by collection of component signals from

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individual components of node elements, it is not possible to directly measure data traffic in a customer service flowing along the network. Data concerning a service is obtained by inspecting component signals generated from individual components which support a particular service." Because service levels are never tested or measured in *Shurmer*, it is not possible to compare test results to requirements of a SLA or SLC. Therefore *Shurmer* fails to teach, disclose, or suggest one or more tests for monitoring a service level contract as recited by the independent claims.

II. "Receiving a Schema Providing a Configuration For Monitoring a Service Level Contract"

As the Office Action correctly notes in Paragraph 7, *Shurmer* does not teach or suggest "receiving a schema that provides a configuration for monitoring a service level contract." The Office Action relies on occurrences of the word "scheme" or "schema" in Col. 2, lns 51-60 and Col. 10, lns 30-41 of *Ellesson* as allegedly teaching this limitation. (Office Action, page 3, paragraph 7).

The Office Action first asserts that Col. 2, lns 51-60 teach this required element. However, this section of *Ellesson* has nothing to do with a "schema", and actually uses the word "schemes", stating: "The schemes that make the network predictable provide mechanisms that can estimate the responsiveness of an IP network" (Col. 2, lns 57-59). The word "schemes" in this cited portion of *Ellesson* is used in the context of referring to the "approaches" or "plans" to maintain availability or to maintain responsiveness, as earlier described in Col. 2, lns 52-55. *Ellesson* is not using the word "schemes" to refer to a "schema." As will be apparent to those skilled in the art, the word "schema" has a well-

understood meaning in the field of computer science, and in particular the specific fields of databases and data definitions, that has nothing to do with a "scheme". For example, according to "www.wikipedia.com", in computer science, a schema is defined as "a model", and an "XML Schema" in particular is defined as providing a model for "defining the structure, content, and to some extent, the semantics of an XML document."

The Office Action next cites Col. 10, lns 30-41 as allegedly teaching a schema that provides a configuration for monitoring a service level contract. The "schema" as used in this section of *Ellesson* refers to a directory server. The directory server in *Ellesson* is described at Col. 7, line 16 – Col. 9, line 2. As described at Col. 7, lns 21-25: "Information in the directory server is used to maintain information about classifying packets into one or more service-levels, to maintain policy information regarding applications, and to maintain information about the difference service-levels that is to be expected of different customers." With respect to service level, Fig. 2 and Col. 8, lns 13-15 of *Ellesson* teach "[t]he Service Level attribute 24 identifies the service level to which the traffic matching the specification of the principle could be mapped onto." *Ellesson* does not teach or suggest a directory server, or any other type of schema, that provides a <u>configuration</u> for <u>monitoring</u> a service level contract.

Furthermore, even if the directory server of *Ellesson* did provide a configuration for monitoring a service level contract, and even if the directory server could be considered to be a schema, the independent claims of the present invention recite that the schema is <u>received</u>. A directory on a directory server may be referenced; however, it is never <u>received</u>.

The schema featured in the independent claims "provides a configuration for monitoring a service level contract between a service provider and a particular customer." Nothing in the cited portions of *Ellesson* or elsewhere can be reasonably construed as disclosing a "configuration for monitoring a service level contract", much less a schema that provides such a configuration and comprises data defining one or more tests for monitoring the level of network service being provided to a particular customer and information defining a specific time range."

Thus, Applicants respectfully submit that neither *Shurmer* nor *Ellesson,* alone or in combination, disclose, teach, suggest or in any way render obvious "receiving a schema that provides a configuration for monitoring a service level contract between a service provider and a customer."

III. "Distributing Tests to Agents, Agents Configuring Devices to Perform Tests and Receive Test Result Information"

Shurmer does not teach or suggest "distributing the one or more tests to one or more agents, wherein the one or more agents configure devices associated with the network to perform the one or more tests during the specific time range and receive result information from the devices performing the one or more tests", as recited by the independent claims.

The Office Action cites sections of *Shurmer* that merely teach collecting data signals directly from network elements. In contrast, the independent claims require that tests be distributed to <u>agents</u>. As described at Page 13, lines 3-16 of the present specification, agents may be computers that perform the setup and polling of the managed devices to obtain metric

information about the quality of service. In one embodiment, the agents store metric

information from the tests locally and communicate back to the SLM Server at a later time.

Shurmer does not teach or suggest the use of agents to configure network devices to

perform monitoring tests and to receive results from the devices, but rather directly collects

information in the form of data signals.

For these reasons, the independent claims 1, 7, 13 and 10 are patentable over the cited

references. Accordingly, reconsideration and withdrawal of the rejections of these claims is

respectfully submitted.

Dependent claims 2, 4-6, 8, 10-12, 14, 16-17 and 19-20 all include the limitations of

the independent claims by virtue of their dependence. Therefore the dependent claims are

patentable over the cited art for at least the reasons set forth herein. Furthermore, the

dependent claims recite additional limitations that independently render them patentable over

the cited art. In view of the patentability of the independent claims, only some of the

dependent claims are further argued in order to expedite prosecution.

DEPENDENT CLAIMS 2, 8, 14 AND 20

Representative claim 2 recites "creating and storing reporting information that

indicates whether the customer is actually receiving, during the specific time range, the level

of network service offered by the service provider in the service level contract, said reporting

information based on result information received from the devices." The section of *Shurmer*

cited in the Office Action only discloses that "each user is presented with an individual

graphical display of selected performance parameters for each monitoring session" (Col. 20, lines 62-64), giving the example that "a generic display may present that a switch is working a percentage of maximum specific cell through put capacity." (Col. 21, lns 1-2).

There is nothing in *Shurmer* that ties the performance parameters received during a monitoring session with the level of service offered by a service provider in a service level contract. *Shurmer* does not teach, disclose or suggest reporting whether the customer is actually receiving the level of service offered by a service provider in a service level contract, as features in dependent claims 2, 8, 14 and 20. Therefore, withdrawal of the rejection of claims 2, 8, 14 and 20 is respectfully requested on at least this basis.

DEPENDENT CLAIMS 4, 10 AND 16

Claims 4, 10 and 16 are rejected under § 103(a) as being unpatentable over *Shurmer* and *Ellesson*, further in view of *Ballantyne*. Specifically, the Office Action asserts that "Ballantyne's teaching of creating reports in XML format help Shurmer and Ellesson's method to create schema which defines a service level contract in XML format." (Office Action, Page 6, paragraph 14).

Ballantyne does not teach or suggest creating a <u>schema</u> in XML format. *Ballantyne* merely teaches that XML can be used to produce output reports from legacy systems in XML format. As discussed above, the "schema" allegedly disclosed in *Ellesson* is a directory server. *Ballantyne*'s use of XML to produce output reports from legacy systems cannot be used in combination with a directory server to create any kind of schema, much less a schema that models a service level contract as featured in claims 4, 10 and 16, and that also

comprises data defining tests for monitoring the level of network service being provided to a customer and a specific time range for applying the tests, as featured in the independent claims.

Even if the cited references did independently teach the different aspects of these claims, the Office Action fails to show a motivation to combine the teachings of *Shurmer*, *Ellesson* and *Ballantyne*.

A *prima facie* case of obviousness requires that the cited references suggest or motivate a person skilled in the art to combine the teachings of the different references. As stated by the Court of Appeals for the Federal Circuit, "[t]o imbue one of ordinary skill in the art with knowledge of the invention in suit, when no prior art reference or references of record convey or suggest that knowledge, is to fall victim to the insidious effect of hindsight syndrome wherein that which only the inventor taught is used against its teacher." W.L. Gore & Assocs. v. Garlock, Inc., 721 F.2d 1540, 1553, 200 USPQ 303, 312-13 (Fed. Cir. 1983).

Shurmer discloses that a user can input operational parameters to be monitored. However, *Shurmer* never makes any mention of a service level contract, a service level agreement or even monitoring a level of service. There is no motivation anywhere in *Shurmer* to include a configuration for monitoring a service contract, much less of using the directory server (i.e. schema) in *Ellesson* to do so. There is no motivation in any of the cited references to use *Ballantyne*'s method of reporting XML data from a legacy computer system in combination with *Ellesson*'s directory server to create a schema for monitoring a service level contract.

An obviousness rejection also is not appropriate if substantial reconstruction or redesign of the prior art references is necessary to arrive at the invention, as is the case with the cited references. (See *In re Ratti*, 270 F.2d 810, 123 USPQ 349 (CCPA 1959)). Even if a directory server could be used as a schema, none of the cited references convey or suggest the integration of a directory server in the communications network of *Shurmer*. The system of *Shurmer* would have to be substantially redesigned to provide for the directory server as taught by *Ellesson*, and providing a directory server in *Shurmer* would unnecessarily increase the cost of the communications network. Likewise, combining XML reports of *Ballantyne* with a directory server of *Ellesson* would not be technically feasible or desirable.

The Federal Circuit has recently reiterated that "the tests of whether to combine references need to be applied rigorously." McGinley v. Franklin Sports Inc., 262 F.3d 1339, 60 USPQ2d 1001, 1008 (Fed. Cir. 2001). Broad, conclusory statements regarding the teaching of multiple references, standing alone, are not "evidence" (McElmurrary v. Arkansas Power & Light Co., 995 F.2d 1576, 1578, 27 USPQ2d 1129, 1131 (Fed. Cir. 1993)), and a general relationship between fields of the prior art references is insufficient to suggest the motivation to combine such references (In re Dembiczak, 175 F.3d 994, 50 USPQ2d 1614, 1617 (Fed. Cir. 1999)).

Guided by the foregoing principles, the Office Action statement at Page 3, paragraph 7, that "it would be obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of *Shurmer* and *Ellesson* because *Ellesson*'s teaching of using schema and directory help *Shurmer*'s method to collect all the operational parameters, components and elements in preparing the network monitoring" does not meet the standard

for an obviousness rejection under 35 U.S.C. § 103. Similarly, the Office Action statement at

Page 6, paragraph 14 that it "would have been obvious to one of ordinary skill in the art at

the time the invention was made to combine the teachings of Shurmer, Ellesson and

Ballantyne because Ballantyne's teaching of creating reports in XML format help Shurmer

and Ellesson's method to create schema which defines a service level contract in XML

format" is likewise conclusory. The stated goals are so general and vague that they cannot

rationalize the specific invention that is claimed.

It is well-settled that "[i]t is impermissible to use the claimed invention as an

instruction manual or 'template' to piece together the teachings of the prior art so that the

claimed invention is rendered obvious" and that "[o]ne cannot use hindsight reconstruction to

pick and choose among isolated disclosures in the prior art to deprecate the claimed

invention" (In re Fritch, 972 F.2d 1260, 23 USPQ2d 1780, 1784 (Fed. Cir. 1992); quoting In

re Fine, 837 F.2d 1071, 1075, 5 USPQ2d 1596, 1600 (Fed. Cir. 1988)). It appears that

impermissible hindsight was used to generate the foregoing statement of motivation.

Applicants respectfully request the withdrawal of the rejection of the claims on at

least this basis.

CONCLUSION

It is respectfully submitted that all of the pending claims are in condition for

allowance and the issuance of a notice of allowance is respectfully requested. If there are

any additional charges, please charge them to Deposit Account No. 50-1302 (Docket No.

50325-0504).

The Examiner is invited to contact the undersigned by telephone if the Examiner

believes that such contact would be helpful in furthering the prosecution of this application.

Respectfully submitted,

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